Safety Topic of the Month

Major Incident Study & Preventing Serious Injury and Fatalities Field Guide

Richmond Refinery

August 1, 2012

Preventing Serious Injury and Fatality Field Guide *will be available for pick up outside of Admin 101G starting August 6, 2012. Ensure you have the Field Guides prior to your work group review.*

This STOTM satisfies the RI-300 IIPP requirement for the following:
Include a system for communicating with employees in a form readily understandable by all affected employees on matters relating to safety and health, including provisions designed to encourage employees to inform the employer of hazards without fear of reprisal.

Meetings – Each meeting begins with a short safety topic.

- Individual divisions/work groups organize and conduct safety meetings (committee or work team) to fit with work schedules, etc. Generally these meetings occur monthly and minutes from the meeting are posted or circulated through the work group.
- Records of safety meetings should be maintained for at least one year in division files.

Major Incident Study & Preventing Serious Injury and Fatalities
Agenda

- Objective
  - Prevent Major Incidents, Serious Injury and Fatalities
- Highlights of the 2011 Major Incident Study (MIS)
  - Root Causes
  - Recommendations
- Work Group Discussion / Activity
  - Review and discuss one Richmond Bulletin (more serious in nature) as it relates to the Preventing Serious Injury and Fatalities Field Guide.
- Reference
  - For more information on the Major Incident Study and Preventing Serious Injury and Fatalities

Objective

Prevent Major Incidents, Serious Injuries and Fatalities

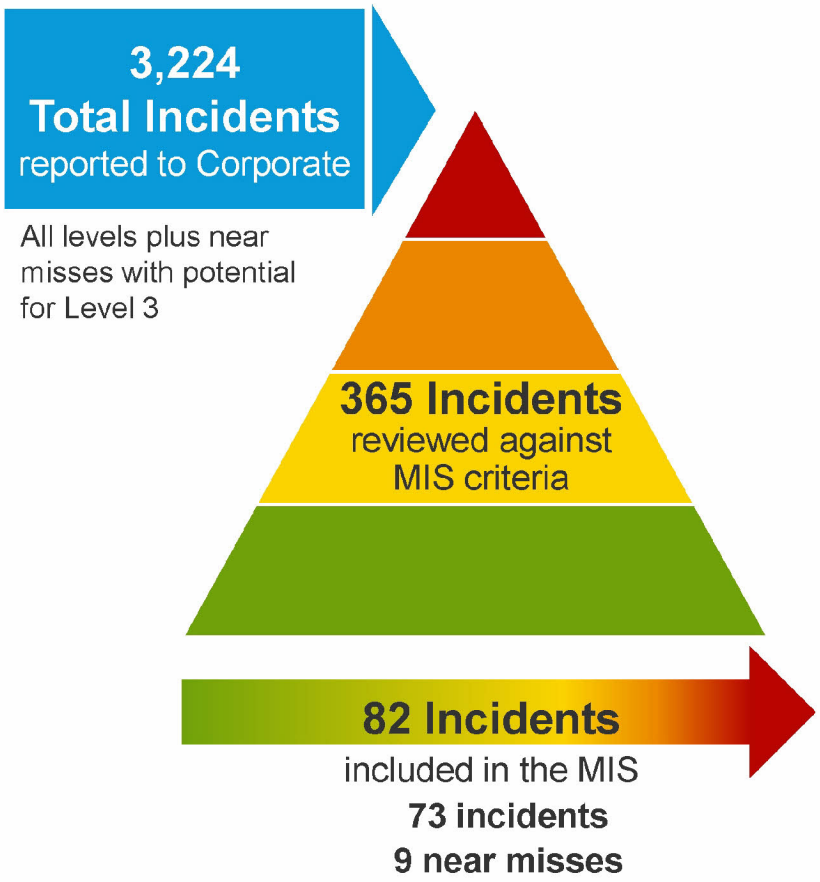
We all agree that we don't want anyone to get hurt at our facility. In other words … no incident or injury is acceptable to us. Learning from the Major Incident Study will assist us in improving our Hazard Awareness, Risk Recognition, and understanding consequences. Because …

Click the link below to watch the 5 minute U&G Fatality Prevention Information Video.

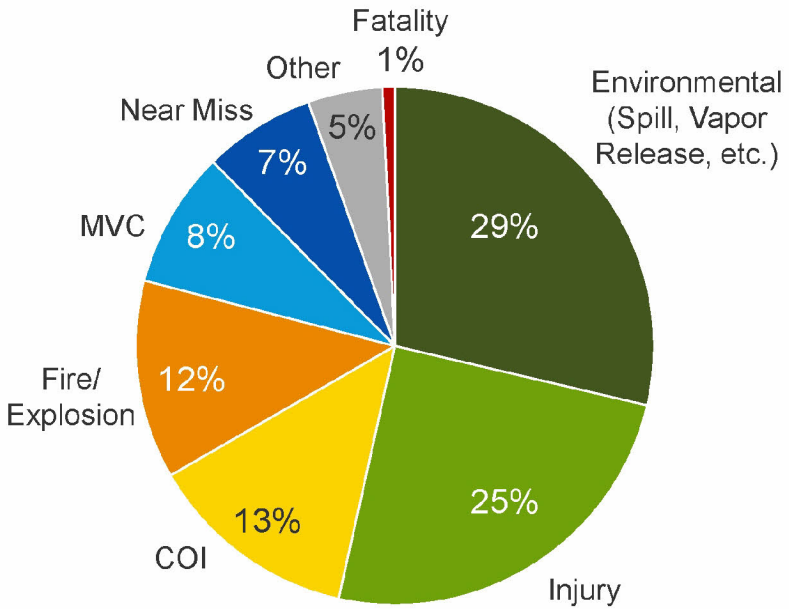
Can You See It? - Video

2011 Major Incident Study (MIS) Frame
January 1 – December 31, 2011

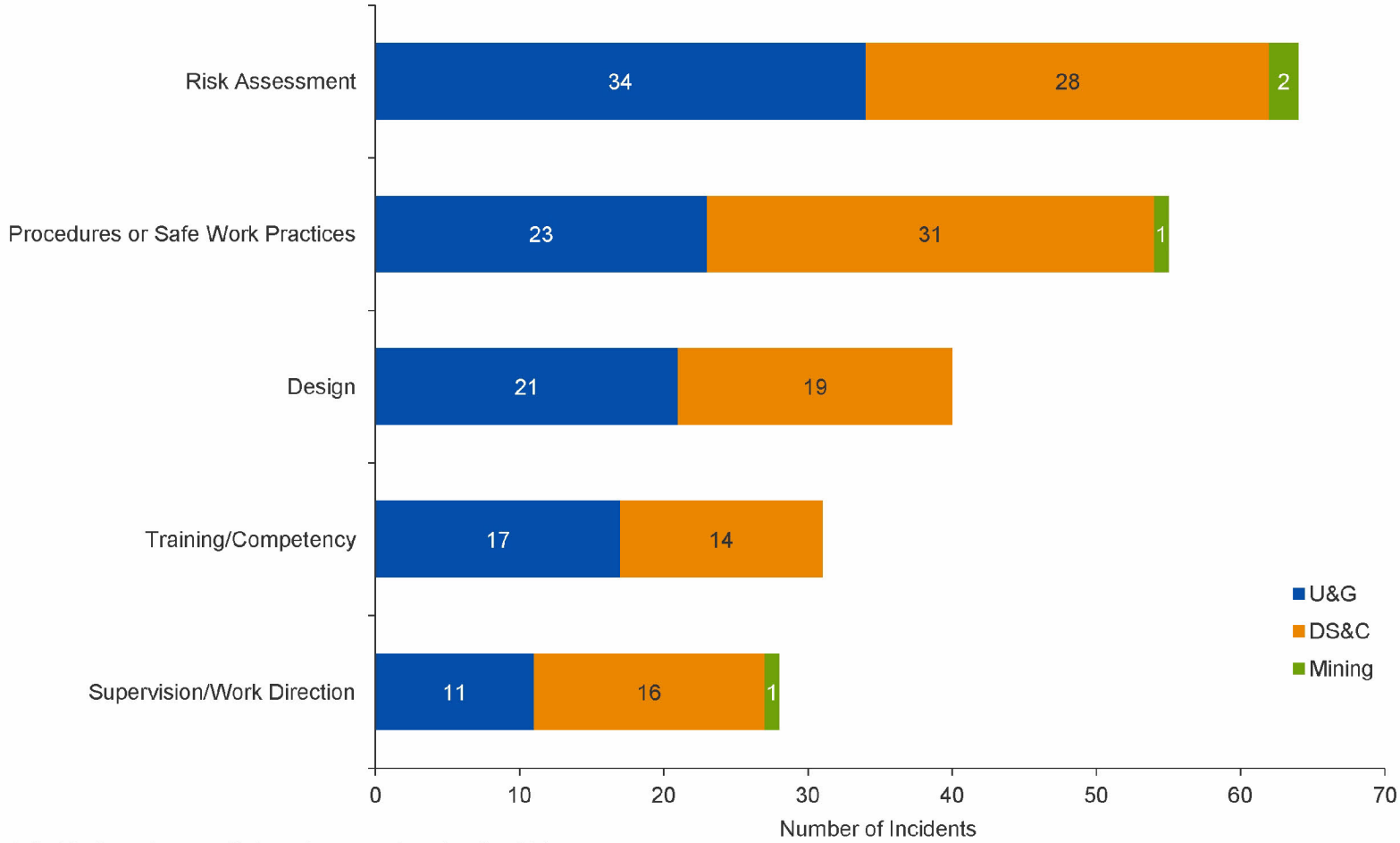
Scope



Consequences Cited in Incident Reports



Leading Root Cause Categories



Note: A single incident may have multiple root cause categories. See Notes for definitions of root cause, root cause category and root cause subcategory.

Overview
Conclusions and Recommended Focus Areas

Risk Recognition and Assessment	
Not recognizing the hazard or anticipating the potential consequence was cited as a root cause in 78% of the study's incidents	▪ At the start of each work phase, verify that the appropriate expertise is involved when evaluating situations for potential hazards and consequences and that lessons learned are both utilized and shared ▪ Measure the use and integrity of individual risk recognition tools such as the Hazard ID Tool, Field Guide*, JSA/JHA, Loss Prevention Self Assessment, Journey Management Planning, Equipment Reliability Programs, etc. ▪ Do not proceed without the right input. Use Stop-Work Authority if appropriate
Procedures or Safe Work Practices	
Procedure-related root causes were cited in 67% of incidents. Procedures were either inadequate, did not exist or were not used	▪ Institute a means to regularly verify (measure) that procedures and Safe Work Practices exist and are accurate for high-risk work ▪ Emphasize operational discipline to achieve or sustain reliable use of operating procedures, especially for high-risk work

Overview
Conclusions and Recommended Focus Areas

Design (Scope and Review)	
Full range of operating and environmental conditions were not always considered and thoroughly defined. Also applies to changes to existing systems	▪ Make sure that designs and proposed changes evaluate an appropriate range of operating and environmental conditions ▪ Validate that all design and risk reviews consider range of impacts and the full potential consequences on entire "process" or system. Use the right people in reviews ▪ For all scenarios, clearly document and communicate the design basis (Process Safety Information) and make it accessible to future owners and operators for MOC
Supervision / Oversight / Competency	
Lack of supervision and oversight was cited in the areas of following procedures, recognizing risks and developing workforce competencies	▪ Supervisors should participate in pre-job safety meetings, actively monitor high-risk work and verify that the appropriate work standards are identified and followed. ▪ Leaders should routinely verify that appropriate expertise is involved when evaluating situations for potential hazards and consequences during **all** phases of work. This includes validating worker competency and ability to perform assigned tasks.

Overview
Conclusions and Recommended Focus Areas

Applying Operational Discipline

Applying Operational Discipline

The study indicates the need for increased focus on achieving appropriate rigor in all work phases – design through work execution

- Achieve reliable operational discipline by measuring progress on the previous four sets of recommendations
- Expand discussions about the use of SWA – in all stages of work (e.g., design, planning)

Improving Human Performance

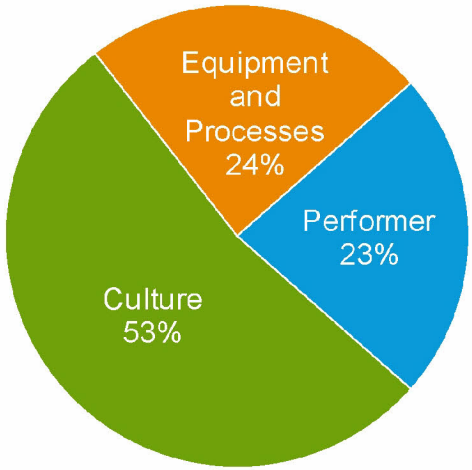
Improving Human Performance

Work culture factors, including oversight on following work standards and providing clear expectations, were a significant influence on human performance

- Leaders should periodically verify that their expectations are clearly understood and personally set the example that an incident-free culture is top priority
- Design procedures, equipment and processes for the performer
- Focus on validating effective training and coaching to improve worker fluency for assigned job functions

Looking at root cause subcategories through a human performance lens

- Procedures or SWP inadequate
- Training exists but inadequate
- Design standards inadequate



- Hazard not recognized
- Design did not anticipate conditions
- Mistake or mental slip

- Inadequate work oversight or enforcement of work standards
- Procedures or SWP not utilized
- Individual was trained but lacked competency/fluency

Note: Only the top 3 root cause subcategories are listed for each component

Work Group Discussion / Activity

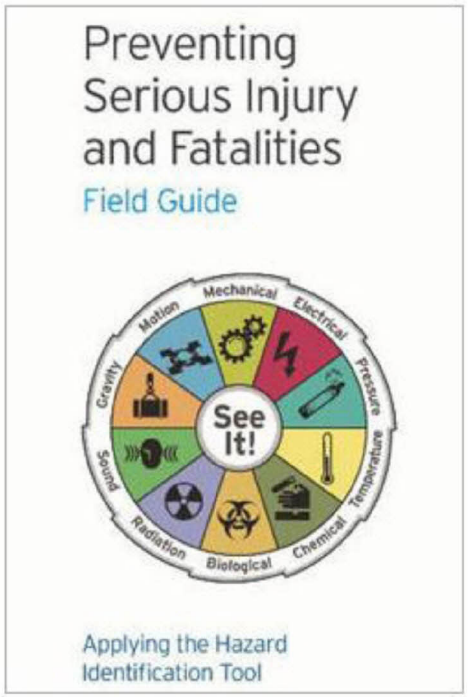
Richmond Incidents and using the Field Guide

1. Open and review one of the Bulletins from the list below.
   - Electrical Shock
   - Lifting and Rigging
   - Motor Vehicle
   - Work at Heights
2. Based on your selection – open the *Preventing Serious Injury and Fatalities Field Guide* to the most related section in the Field Guide.
3. As a group, identify what aspects of the *Field Guide* could have prevented the incident from happening, and how the *Guide* will be used in the future.
4. Now, turn to the Human Performance tab and discuss how we can minimize and prevent human error by using all of our tools and recognizing risks.

Reference
For More Information on …

- ***Major Incident Study***
  - *Link to the Website*

- ***Preventing Serious Injury & Fatalities***
  - *Link to the Website*



Review TOP Lessons Learned

- Learning from our past incidents will help us prevent them in the future.
- Please take a few minutes to review the latest TOP lessons learned.

Click Here to Review TOP Lessons Learned